MAILP

Elzie, Teri L **0075310**

From: Zeisloft, James H Jr
Sent: Wednesday, February 16, 2000 9:32 AM
To: 'HUGHS Susan C'; bharper@nwinfo.net; dan_audet@mail.fws.gov; danl@timpt.nezperce.org; Teel, Darci D; dmos461@ECY.WA.GOV; gadbois.larry@epa.gov; Zeisloft, James H Jr; jjakabos@or.blm.gov; JMCC461@ECY.WA.GOV; jrwilkinson@ctuir.com; Nick.Iadanza@noaa.gov; preston_sleeger@ios.doi.gov; Elzie, Teri L; tom_obrien@mail.fws.gov; viguelav@dfw.wa.gov; AddressListTooLong-Suppressed
Subject: RE: AP Chromium article

We made a bit of a splash. As indicated in Susan's message, the AP picked up the Tri-City Herald article. It was printed in the USA Today state section (condensed) and the Seattle PI. These are the papers I know of, there may be more. The USA Today and PI articles can be found on the following web sites.

http://www.usatoday.com/news/states/wamain.htm (2/14/00), <http://www.seattle-pi.com/local/hanf141.shtml>.

Jamie

-----Original Message-----
From: HUGHS Susan C [SMTP:Susan.C.Hughs@state.or.us]
Sent: Tuesday, February 15, 2000 7:19 PM
To: bharper@nwinfo.net; dan_audet@mail.fws.gov; danl@timpt.nezperce.org; DDTEEL@bhi-erc.com; dmos461@ECY.WA.GOV; gadbois.larry@epa.gov; James_H_Jr_Zeisloft@rl.gov; jjakabos@or.blm.gov; JMCC461@ECY.WA.GOV; jrwilkinson@ctuir.com; Nick.Iadanza@noaa.gov; preston_sleeger@ios.doi.gov; tlelzie@bhi-erc.com; tom_obrien@mail.fws.gov; viguelav@dfw.wa.gov; AddressListTooLong-Suppressed
Subject: AP Chromium article

Another version of Monday's TCH article....

Effect of chromium on salmon being tested

Monday, February 14, 2000

THE ASSOCIATED PRESS

KENNEWICK -- Researchers want to know whether chromium seeping into the Columbia River from the Hanford nuclear reservation is killing baby salmon.

In theory, the threat exists. In reality, no one knows. The results of an experiment under way could help determine how much effort Hanford puts into stopping the underground plumes, seeping into the river from the K, D and H reactor areas.

The D and H plumes flow into a major portion of the last major salmon-spawning stretch of the river, the Hanford Reach.

Chromium is a non-radioactive chemical used to decontaminate and slow corrosion in Hanford's old plutonium reactors.

It travels through membranes, gills and mouths of baby fish and concentrates in their internal organs and tissues, sickening and even killing them.

Pacific Northwest National Laboratory is exposing hundreds of salmon eggs, newly hatched chinook or alevin, and juvenile fish to different concentrations of chromium in a lab at Hanford's 300 Area.

The federal drinking water standard is 100 parts of chromium per billion parts of water; non-Hanford studies put the danger level for salmon at 11 parts per billion.

beneath the river and
bubbles up in much higher concentrations through the riverbed's gravel, where salmon lay their eggs.

"Hot spots" of high chromium concentrations in the riverbed's gravel can reach 150 to 200 parts per billion, with at least one hitting 650 parts per billion.

The hot spots are scattered across the river bottom. So are salmon nests.

The first stage of testing was conducted in Columbia, Mo., by the U.S. Fish and Wildlife Service and U.S. Geological Survey. Eggs, alevin and tiny fish from a South Dakota hatchery were exposed to chromium concentrations up to 120 parts per billion.

Results showed no harm to the eggs or alevin. But the "parr" fish, the age group just beyond alevin, did show some ill effects.

The results are still being sorted out, said Aaron DeLonay, one of the Geological Survey experts who did the Missouri experiment.

PNNL is almost eight weeks into duplicating the Missouri tests. But it is using Columbia River water, Hanford's chromium-laced ground water, and Priest Rapids hatchery eggs to better mimic the Hanford Reach, said Jamie Zeisloft, the Department of Energy official in charge of the study, and Greg Patton, a PNNL senior research scientist.

River water at concentrations up to 266 parts per billion is fed into different sections of a 7-foot-long aquarium with a water depth of 6 to 8 inches. Each aquarium section has four glass jars with open bottoms covered with mesh. The jars hold 50 eggs each and are gently rocked to simulate a flowing river.

Last week, the eggs hatched. In several weeks, they will evolve into parr. After another 30 days, the parr will be euthanized and their tissues and organs studied.

So far, eggs showed no harm from chromium, duplicating the Missouri results. Now, scientists watch the alevin, hunting for individuals acting differently from the majority, or for lower-than-average weight or length.

The lab cannot duplicate the gravel, algae, different substances and fluctuating conditions in the Columbia River, Zeisloft said. In late spring after the PNNL tests, scientists plan to decide if and how a next test stage should be done.

------- End of forwarded message -------